

REMARKS

Claims 1-14 are pending in the application. Claims 1, 6, 7 and 12 are rejected. Claims 2-5 and 8-11 are objected to but would be allowable if placed into independent form. Claims 13 and 14 are cancelled. Applicant has added new claims 15-18.

Election/Restriction

Claims 13 and 14 are withdrawn from further consideration by the Examiner on the basis of an election made by the Applicant without traverse, and the absence of any allowable generic or linking claim. Accordingly, Applicant has cancelled these claims in order to secure early allowance of the application.

Claim Rejections – 35 USC 103

Claims 1, 6, 7 and 12 are rejected under 35 USC 103(a) as being unpatentable over Cook et al (5,297,529) in view of Distelhoff et al (2002/0108604). This rejection is traversed for at least the following reasons.

Independent claims 1, 6, 7 and 12 generally concern a gas-tightness diagnosing apparatus for a fuel tank. The apparatus includes an evaporative emission purge structure for temporarily adsorbing fuel vapors created in the fuel tank and for purging the fuel vapors to an air intake portion of an internal combustion engine under a predetermined engine operating condition. Also included is a pressurizing structure 9 that is mounted in the fuel tank 1 and raises an internal pressure in the fuel tank and in the evaporative emission purge system, as well as a pressure sensor 12 that detects the internal pressure. Finally, there is a diagnosing structure 13 that diagnoses a gas-tightness of the fuel tank and of the evaporative emission purge system based on a change in the internal pressure.

Cook et al

The Examiner asserts that all of the structure of these claims is found in Cook et al, except for the mounting of the pressurizing structure in the fuel tank. In particular, the Examiner points to a fuel tank 18 with a canister 16, a purge solenoid 12 that supplies vapors to an engine intake under “predetermined conditions” and a pump 24 with a blower motor 30 that is asserted to be a pressuring device that “raises the internal pressure of the fuel tank and purge system in

general.” Finally, a pressure sensor 28 and an engine computer 22, which diagnosis leakage based on pressure and time (col. 5, lines 25-40), are identified as the remaining corresponding structures.

The Examiner admits that the blower or pump 30 is not mounted in the tank, as required by the claim. Thus, the Examiner turns to Distelhoff for the missing structure.

Before dealing with Distelhoff et al, Applicants would further note that there is a second basis for distinction. Specifically, Cook et al is not concerned with raising the pressure in the fuel tank. Its only concern appears to be with the pressure in the canister. In Cook et al., the canister purge system requires means for positively pressurizing a portion of the canister purge system to a predetermined positive pressure (column 6 lines 64-67), in order to ensure desired benefits. Thus, the claim limitation requiring a pressurizing structure that raises an internal pressure in the fuel tank and in the evaporative emission purge system cannot be met. In support of this position, Applicants note that Fig. 1 of Cook et al does not show any pressure connection between the tank 18 and the blower 30; the only connection is to the canister 14. Applicant respectfully submits that the entire disclosure of Cook et al concerns the integrity of the canister purge system (e.g., col. 3, line 54) and the measurement of leaks in “that portion of the CPS system upstream of and including the CPS valve 12” (col. 4, line 17). Thus, it is not concerned with leaks in the fuel tank.

Distelhoff et al

The Examiner points to a motor 3 and compressor 4, serving as a pump, which is mounted inside a fuel tank 1. The Examiner notes that the compressor may be used to regulate pressure used for leak testing of the evaporative space, as discussed at paragraph [0008]. The Examiner asserts that the teachings of Distelhoff et al would suggest the modification of Cook et al such that the compressor would be mounted inside the tank 18.

However, Applicants respectfully submit that the compressor is used to evacuate the tank, not fill it, as is clear from paragraph [0024] and the express teachings in paragraph [0030] that the purpose of the invention is to suck gas out of the compensation vessel 8 and deliver it to the pressure vessel 5, so that when the compressor is operating, the pressure within the fuel tank falls

Amendment under 37 C.F.R. § 1.111
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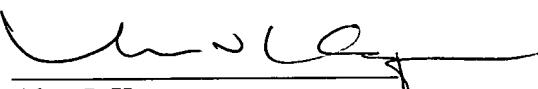
and the pressure within the pressure vessel rises (paragraph [0008]). Even the detection of leaks is conducted at low sub-atmospheric pressure by the power uptake of the compressor, as explained at paragraph [0008], which was cited by the Examiner. Thus, Applicants respectfully submit that Distelhoff et al is wholly inapplicable to the present invention, which is concerned with pressurizing the fuel tank and purge system, while the reference is concerned with exhausting the system.

Applicants strongly assert that Distelhoff et al does not remedy the deficiencies of Cook et al and, moreover, because it is an exhaust-based system, rather than a pressurizing system, it is incompatible with Cook et al. Thus, there is no motivation or suggestion for combining Cook et al and Distelhoff et al, and even if combined, they would not lead to the present invention.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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